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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,153	12/20/2001	Luigi Laricchia	106023	1171
23490 7590 05/16/2007 HONEYWELL INTELLECTUAL PROPERTY INC PATENT SERVICES 101 COLUMBIA DRIVE P O BOX 2245 MAIL STOP AB/2B MORRISTOWN, NJ 07962			EXAMINER BHAT, NINA NMN	
			ART UNIT 1764	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/027,153

**Applicant(s)**

LARICCHIA ET AL.

**Examiner**

N. Bhat

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20 is/are allowed.
- 6) ☒ Claim(s) 1,5 and 6 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12-20-2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Applicant's arguments of February 21, 2007 have been fully and carefully considered. The examiner acknowledges the Terminal Disclaimer which has been accepted. Accordingly the rejection the obviousness-type double patenting rejection over the 6,749,741 has been obviated and withdrawn.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1,5 and 6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Brower. Claims 1, 5 and 6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Brower USP 2,228,028.

Brower includes an extractor (2) which can broadly be interpreted to read on a prewash, and extractor (18) which can function to convert other sulfur containing compounds or can convert mercaptans to mercaptides. It would have been obvious to one having ordinary skill in the art at the time the invention was made to position the extractor (2) below extractor (18) based on using routine engineering practice for the positioning of the extractor and prewash sections. In the Brower patent, the extractor 2 can be construed to be a prewash vessel, and applicant argues that the extraction taking place

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in Brower is primarily removing thiophenols only, and would not read on a prewash section for converting hydrogen sulfide to sodium sulfide, applicant is reminded that the claims are directed to an apparatus for these arguments to be persuasive, the applicant has to claim what type of reaction takes place, in apparatus claim it is immaterial to the apparatus as to what type of reaction is taking place only that it is capable of conducting the reaction. Therefore, in order to effectively argue the difference applicant must argue the structural differences as opposed to the process conditions. Applicant is reminded that in MPEP 2114 and 2115, that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). With this reasoning claims 1 5 and 6 are rendered obvious by Brower because the type of reaction taking place within the different extractors are intended use limitations and therefore have no significance. Therefore, in order for this limitation to have patentable weight, the extractor needs to include the source required for converting mercaptans to mercaptides and the prewash section has to include the source of material which includes hydrogen sulfide to sodium sulfide. If the apparatus were sold, the apparatus needs all the parts/ elements in the device its construction and arrangement, sources of elements/materials and the operative connections which permit the removal of sulfur compounds in a hydrocarbon to distinguish over the Brower patent.

2. Claims 11-17 are allowable as applicant has timely filed and properly executed a Terminal Disclaimer over the 6,749,741 patent. Claims 18-20 are directed to an apparatus for converting sulfur compound in a hydrocarbon stream the apparatus

includes an extractor section for converting mercaptans to mercaptides, a hydrocarbon feed conduit with an outlet in communication with the extraction section proximate to the bottom of the extraction section, a hydrocarbon product within an inlet communicating with the extractor section proximate a top the extractor section, and a mesh coalescer located at the top of the extractor. Brower does not teach providing a coalescer which is located at the top of the extractor section which facilitates contact between the alkali solution and hydrocarbon which permits no more than 1 ppm of alkali from passing through the coalescer during operation.

3. Claims 2- 4 and 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because Brower does not teach providing a coalescer which is located at the top of the extractor section nor that the extractor section and prewash section are separated by an imperforate baffle as claimed.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



N. Bhat  
Primary Examiner  
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